

PNG commodity prices—an opportunity not to be missed

Bob Warner and Eric Omuru

Papua New Guinea is enjoying yet another mineral price boom which is underpinning a recent expansion in manufacturing and services. But with a difference. Unlike in previous booms, prices of most cash crops have also been surging, with significant parts of the rural economy benefiting. However, it is not clear that there is much expansion of smallholder productive capacity. The fundamental constraints continue to exist—transport, communication and financial services, as well as the poor environment for formal sector investment in agricultural services, logistics and processing. The real test of Papua New Guinea's management of the boom will be how it translates the surge in earnings into investment to address these problems.

Bob Warner is a Director of the Centre for International Economics.

Eric Omuru is Economist and Marketing Specialist, Industry Affairs Division, Kokonas Industri Koporesen.

Papua New Guinea has been undergoing another mineral price boom. The growth in (primarily government) revenues and spending has underpinned a strong expansion of manufacturing and services. Unlike in previous booms, prices of most cash crops have also been surging. Along with the effect on the exchange rate of active sterilisation of inflows by the Bank of Papua New Guinea and a deferral of much of the additional expenditure triggered by additional revenues, this has meant that significant parts of the rural economy have also been doing well. Much of the expansion of exports is, however, from more active harvesting of existing plantings: it is not clear that there is much expansion of smallholder productive capacity. The fundamental constraints of transport, communication and financial

services—and the poor environment for formal sector investment in agricultural services, logistics and processing—still make smallholder investment a very risky proposition. The real test of Papua New Guinea's management of the boom will be, as before, if it can translate the surge in earnings into investment to address these problems.

Recent economic developments

The economy of Papua New Guinea has recorded reasonably solid and broadly based growth in the past couple of years. Total gross domestic product (GDP) is estimated to have grown at an average rate of 3.3 per cent a year in the five years from 2002 to 2007 (Table 1).

Economic survey

In contrast with their performance in previous medium-term spells of growth, the oil, gas and mining sectors accounted for a relatively small share of the expansion. Agriculture is estimated to have accounted for one-third of the growth during the period, and construction more than one-quarter. The manufacturing, construction and transport and communication sectors have grown particularly rapidly (Table 1).

Some of the growth is attributable to the recovery of business confidence in response to the restoration of fiscal discipline after the crisis at the beginning of the decade, and some of the growth in transport and communication is due to the successful launch of a new mobile phone service (Box 1). Increased investment in the mining sector has been an important factor behind the growth in construction. Much of the expansion is, however, due to the boom in commodity prices and the increases in expenditure (especially public expenditure) that the increase in export revenues has allowed.

Fiscal and monetary policies

The government has been a direct beneficiary of the strong demand for resources from Asia in the past few years. Oil and copper prices have been at unprecedentedly high levels, and gold has also seen large increases. Mineral revenues in 2007 were more than five times higher than in 2002, driving a near doubling of total government receipts and facilitating an increase in total expenditure and net lending of more than 80 per cent.

The impact on revenues of the sustained increases in commodity prices was not anticipated fully in the spending plans of successive annual budgets. The government responded to the increases with a series of supplementary budgets. In the past four years, K3.8 billion of additional expenditure was committed in this way. More than one-third was transferred into trust accounts and, as of October 2007, about 40 per cent had not been released (Table 2). Only 17 per cent had been used to run down debt.

Table 1 Papua New Guinea: recent growth performance, 2005–2007

	2005–06	2006–07	2002–07	
	Growth rate (per cent p.a.)	Growth rate (per cent p.a.)	Trend (per cent p.a.)	Share ^a (per cent)
Agriculture, forestry and fishing	0.7	3.7	2.9	33.6
Oil and gas extraction	–0.2	0.9	1.1	0.6
Mining and quarrying	–8.1	5.5	0.8	3.5
Manufacturing	5.0	4.0	5.5	11.6
Electricity, gas and water	3.0	3.0	4.6	2.2
Construction	12.0	14.0	7.4	26.4
Wholesale and retail trade	6.0	8.0	4.6	9.8
Transport, storage and communication	5.0	35.0	7.3	7.8
Finance, real estate and business services	8.5	6.2	2.6	2.7
Community, social and personal services	2.5	4.0	0.5	1.8
Total	2.6	6.2	3.3	100.0

^a Share of change in real GDP between 2002 and 2007

Source: Papua New Guinea, 2007. *2008 National Budget Volume 1*, Government of Papua New Guinea, Port Moresby.

Economic survey

Box 1

Telecommunications—a positive story

In the middle of 2007, a new entrant into the telecommunications sector brought an end to a long-standing monopoly. Prior to the launch, the World Bank estimated fixed line penetration in Papua New Guinea at slightly more than 1 per cent and mobile penetration of 3 per cent of the population, amongst the lowest in the world.

The new company, Digicel, with investment from the World Bank's International Finance Corporation, has moved rapidly to roll out its network, which at the end of 2007 included 197 sites covering 8 provinces and the National Capital District. The company estimates that about 1.8 million people live in the area covered by the sites. The company plans to roll out services to an additional 11 provinces in 2008, to provide access in all regional centres in the country.

The competition introduced by the new entrant has seen a significant reduction in the costs of mobile telephony in the country, and the provision of a much wider range of services. It has also created new job and income earning opportunities, including for street vendors of pre-paid cards. But most importantly it has meant that people in many rural areas of the country are in telephone contact, with significant implications for the transactions costs in the value chain for rural products.

Source: International Finance Corporation, Digicel advertising supplement.

Table 2 **Papua New Guinea: supplementary budget appropriations and expenditure, 2008**

	Appropriated (kina million)	Share of total appropriation (per cent)	Spent ^a kina million	Paid into trust account (kina million)	Not released ^a (kina million)
Health	388	10	21	185	182
Education	453	12	34	247	172
Law and justice	333	9	36	120	177
Transport infrastructure	634	17	216	140	278
Income earning opportunities	140	4	10	75	55
Gas equity	500	13	-	500	-
Debt and other liability payments ^b	647	17	100	-	547
Others	725	19	443	51	231
Total	3,820	100	860	1,318	1,642

^a as at 23 October 2007

^b Other liabilities are primarily the Government's outstanding liability to the public servants superannuation fund.

Source: Papua New Guinea, 2007. *2008 National Budget Volume 1*, Government of Papua New Guinea, Port Moresby.

Economic survey

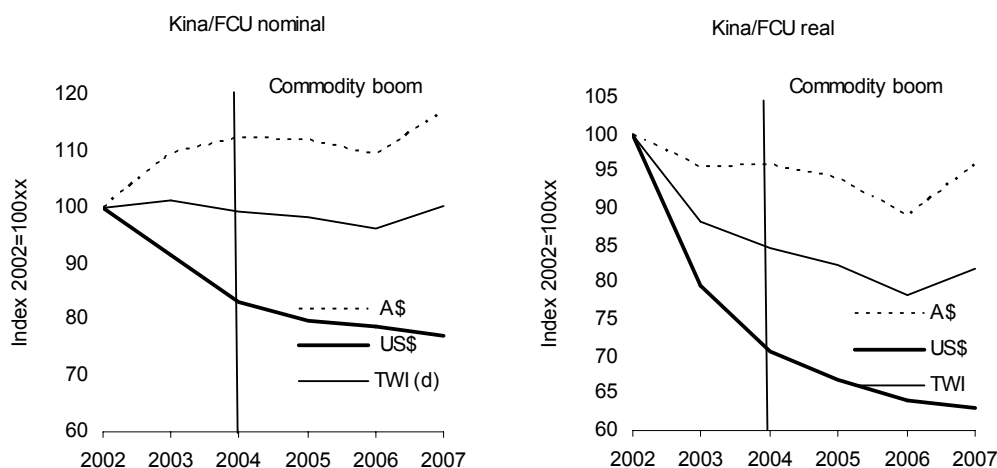
The 2008 Budget discusses at some length how the government intends to handle surging mineral revenues, recognising the difficulty of predicting these revenues and the dangers of predicating expenditure on expectations of revenue flows that might not be realised. It proposes that only the component of expected mineral revenue that equals 4 per cent of GDP will be used to fund continuing spending. The remainder will be split between additional public investments and repayment of public debt. A guideline ratio of 60 per cent for public investments and 40 per cent for debt repayment is proposed. If this guideline had been applied in 2006 and 2007, debt repayments would probably have been considerably higher than the K647 million appropriated under the supplementary budgets. It also appears that the guideline is not being followed closely in the 2008 Budget, which allocates only 21 per cent

of estimated additional mineral revenue to reducing debt and other liabilities.

The most prudent course in the past few years would have been to use the revenue surge to reduce debt much further. While the broad allocation of the trust funds is in line with well-established priorities, the test will be in how the resources are finally used. Past experience with trust funds shows that good intentions are not always realised.

Although the strong fiscal position led to a reduction in the banking system's net claims on government in 2006 and 2007, the money supply grew strongly in those years—by 39 and 27.3 per cent respectively (Kamit 2008). Rapid growth in net foreign assets of the banking system played a large role in this expansion (net foreign assets grew by 58.2 per cent in 2006 and 51.7 per cent in 2007, as gross international reserves increased by more than K3.6 billion compared with 2005 levels—a change of more than 150 per cent).

Figure 1 Recent movements in exchange rates, 2002–2007



Note: The figure shows indexes of the kina value of the Australian and US dollars and the trade-weighted exchange rate index, and the indexes deflated by the consumer price index.

Source: Bank of Papua New Guinea, various years. *Quarterly Economic Bulletin*, various issues, Bank of Papua New Guinea, Port Moresby.

Economic survey

Exchange rates and prices

The commodity price boom has generated a significant increase in foreign exchange earnings. Compared with the previous commodity boom (in the early 1990s), however, this has not translated into a major nominal appreciation of the kina (Figure 1). While the kina has appreciated against the US dollar since 2002, it has depreciated against the Australian dollar, and the trade-weighted exchange rate has held nearly constant. Most of the appreciation against the US dollar occurred before commodity revenues surged. As the 2008 Budget papers point out, the exchange rate has not reflected the large increase in Papua New Guinea's terms of trade caused by the commodity boom, or the significant increase in foreign reserves.

There are two key factors that contribute to this. The first is that since the majority of mineral export revenues that accrue to Papua New Guinea do so as government revenues, the impact on monetary aggregates and the exchange rate are determined heavily by fiscal policy: the level and foreign exchange content of government spending associated with the increase in export earnings. Because the government has as yet not spent the entire revenue surge, there has not been such a significant impact on domestic absorption. Where revenue allocated to trust funds is earmarked for spending on local goods and services, this could eventually spill over into pressure on prices and the exchange rate. Where it is earmarked for foreign exchange expenditure—such as equity in the gas project—the outlays will not impact on the demand for kina.

The second factor is the extent to which the Bank of Papua New Guinea has offset accumulation of foreign assets by direct sterilisation actions, such as the issuance of bills to withdraw liquidity from the market,

combined with the fact that only a portion of the foreign exchange that is converted into kina passes through the foreign exchange market; a significant proportion of the conversion of the government's foreign exchange inflows occurs outside the market.

The consumer price index (CPI) suggests that in the five years to 2007, prices have increased at an average rate of 3.5 per cent a year. Adjusting the trade-weighted exchange rate index for this change implies a real appreciation of about 18 per cent since 2002; the real trade-weighted exchange rate had, however, not changed since 2004 when commodity prices began surging upwards (Figure 1).¹

A closer look at agriculture

Agricultural value-added has grown on average by 2.9 per cent a year since 2002 (Table 1). The Treasury estimated the underlying data, since the statistics office had not issued any new GDP estimates since 2002. In that year, about 50 per cent of estimated agricultural value added was non-marketed produce (primarily food). Growth in this component of agriculture is usually estimated to be the same as population growth, with adjustments made when bad weather or other shocks occur; basically, however, there are no hard data on which to chart changes in a large part of the sector's production. More information is available on the main export cash crops, but this reflects export sales rather than production. (Very limited data are available on food produced for market sales, or for betel-nut—a major domestic cash crop with extensive distribution networks.) With this caveat in mind, it is possible to say something about the main cash generators for much of rural Papua New Guinea.

Economic survey

Where cash crops are grown

For obvious geo-climatic reasons, not all parts of Papua New Guinea can grow the main export cash crops (copra, copra oil, palm oil, coffee, cocoa, tea and rubber). Other factors, however—such as transport infrastructure—limit production in some areas where production is feasible.

Data assembled by the National Economic and Fiscal Commission make it clear that some parts of the country produce very little in the way of these crops. West New Britain accounts for more than 30 per cent of cash crop production, while Western, Gulf, Sandaun, Manus and Southern Provinces produce hardly any of these crops (Figure 2).

Figure 3 shows the distribution of production of the main cash crops by region. More than 90 per cent of the nation's coffee and all of its tea is grown in the Highlands region; nearly all rubber is grown in Southern Province; and about 80 per cent of cocoa and copra is exported from the islands.

Recent developments: prices and production

Most cash crops have experienced a significant increase in prices. Increasing food demand from Asia—as well as the impact of industrial-country policies on bio-fuels and the impact on bio-fuel demand of soaring petroleum prices—has affected palm oil, copra and coconut oil. Coffee prices in 2007 were higher than the previous peak in 1994, and cocoa prices reached the highest level since 1991. The weighted price of the main cash crops has increased by more than 100 per cent since 2001 (Figure 4).

The production response to these price changes has been rather variable. Copra and copra-oil exports have surged in the past five years, but copra exports are still way below levels reached in the early 1990s (Figure 5 and Table 3). Palm-oil exports

have been growing quite rapidly in the past couple of years, while coffee exports have declined.² What is significant is that in the past decade and a half, only palm oil, tea and rubber production have grown at faster average rates than population.

What seems to be happening is that, with the exception of palm oil, there is little if any expansion in plantings or productivity. This is a long-term problem. A recent study (Reddy 2007) of the agricultural sector in the Pacific showed that per capita crop production in Papua New Guinea was no higher in 2001–03 than it had been 40 years earlier. A companion study by Fleming (2007) suggested that such productivity growth as was observed in PNG agriculture was driven by the oil-palm sector.

With the exception of oil-palm—and some rather sporadic outbursts of non-traditional cash crops—rural output growth has therefore been pretty poor. It is not clear that per capita rural incomes (other than flows to landowners from mineral and logging activities, and which have not been distributed widely) have grown much in real terms since the early 1990s. In 2006 prices, real incomes from the seven main export crops have grown at a trend rate of 1.8 per cent since 1990—well below the rate of growth of the rural population.

Apart from palm oil, the bulk of cash crop production is in smallholder hands, so the key question is why smallholders are not investing in larger plantings or higher-productivity technologies. Some insights into this question come from looking at a once important tree crop: coconut.

A coconut story

As with other parts of the Pacific, in Papua New Guinea, coconut palms generate a significant range of products and services for the rural community. Among these, copra destined for export or local processing into coconut oil has long been a major source

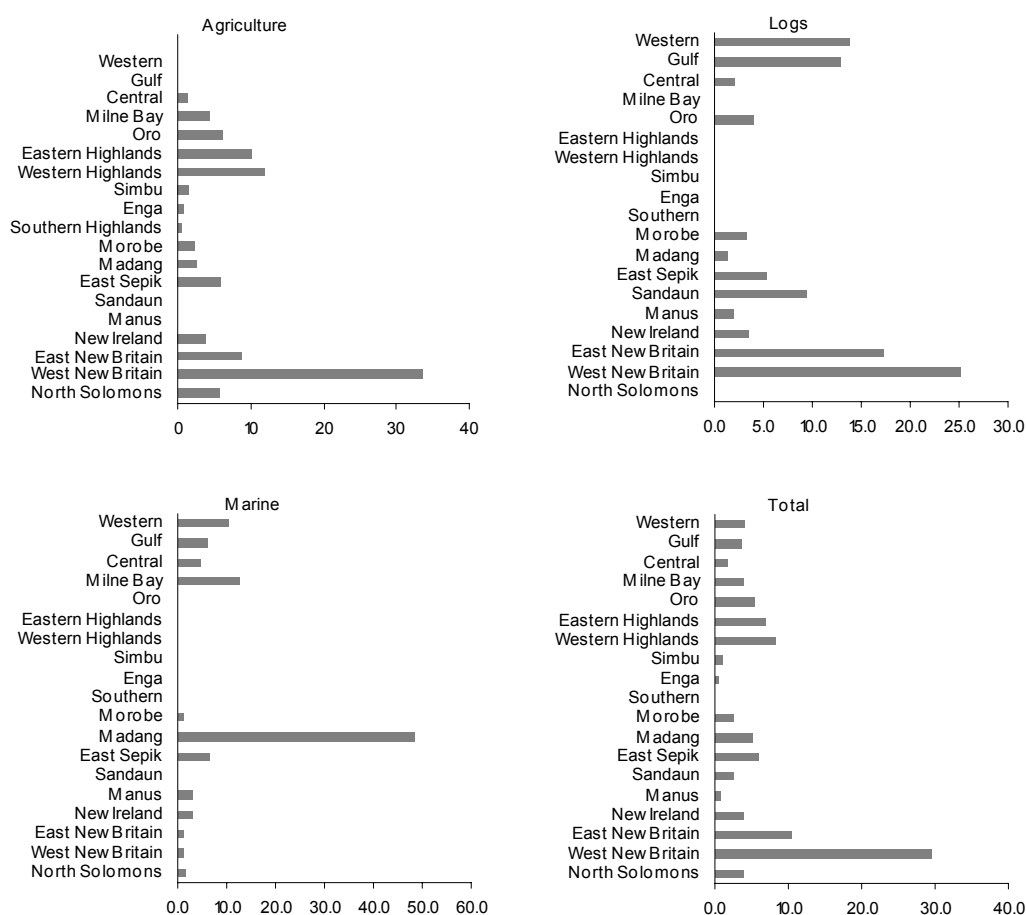
Economic survey

Table 3 Papua New Guinea: growth in export quantities, 1991–2007

	Unit	Copra	Palm oil	Coffee	Cocoa	Tea	Copra oil	Rubber
1991	Index 1991=100	100	100	100	100	100	100	100
2002	Index 1991=100	36	162	135	97	111	85	136
2007	Index 1991=100	53	192	121	125	151	163	161
Trend 2002–07	Per cent per annum	9.9	2.9	–3.6	4.6	4.1	9.0	3.5
Trend 1991–2007	Per cent per annum	–8.8	4.0	0.6	1.7	2.5	1.5	2.9

Source: Bank of Papua New Guinea, 2007. *Quarterly Economic Bulletin*, various issues, Bank of Papua New Guinea, Port Moresby.

Figure 2 Agriculture, forestry and marine export production, by province (per cent)

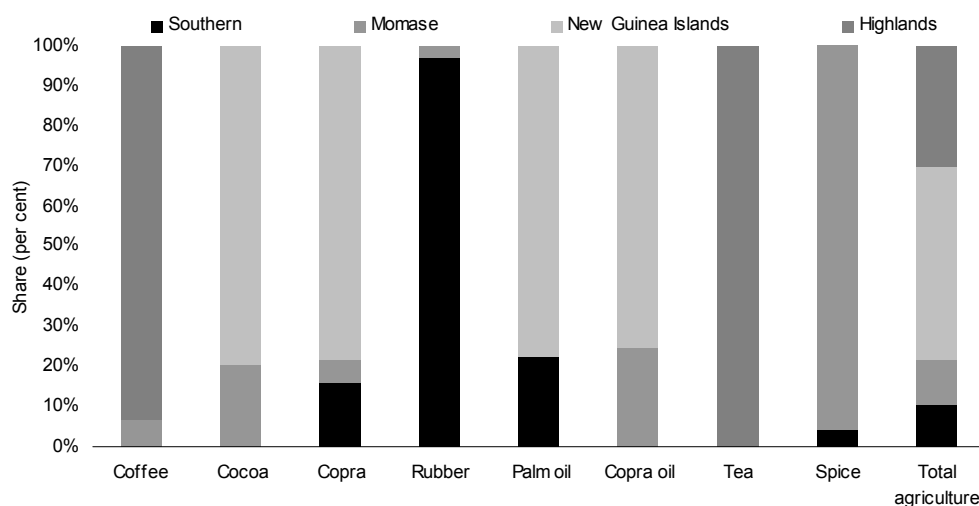


Note: Data used by the National Economic and Fiscal Commission to estimate revenue allocations for the derivation component of the revenue sharing formula.

Source: National Economic and Fiscal Commission (NEFC), personal communication.

Economic survey

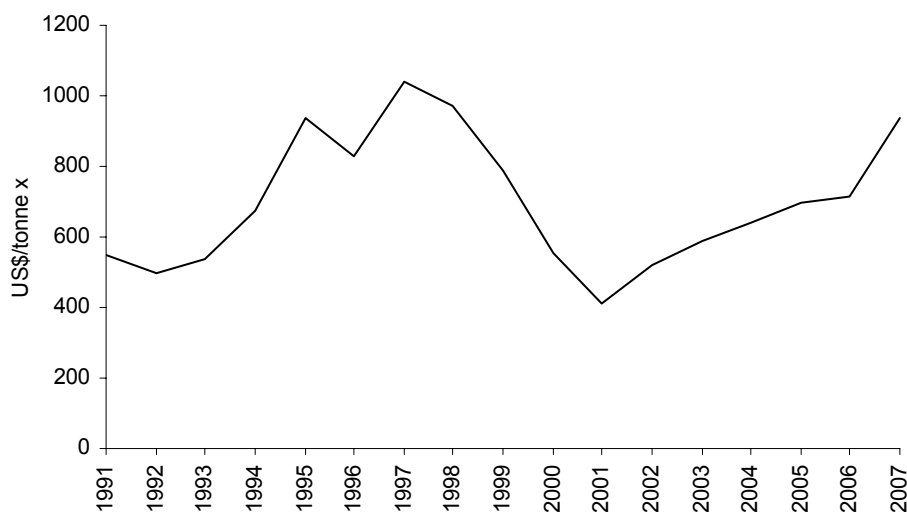
Figure 3 Papua New Guinea: distribution of export crops, by region (per cent)



Note: Data used by the National Economic and Fiscal Commission to estimate revenue allocations for the derivation component of the revenue sharing formula.

Source: National Economic and Fiscal Commission (NEFC), personal communication.

Figure 4 Average price (production weighted) of the main export cash crops, 1991–2007

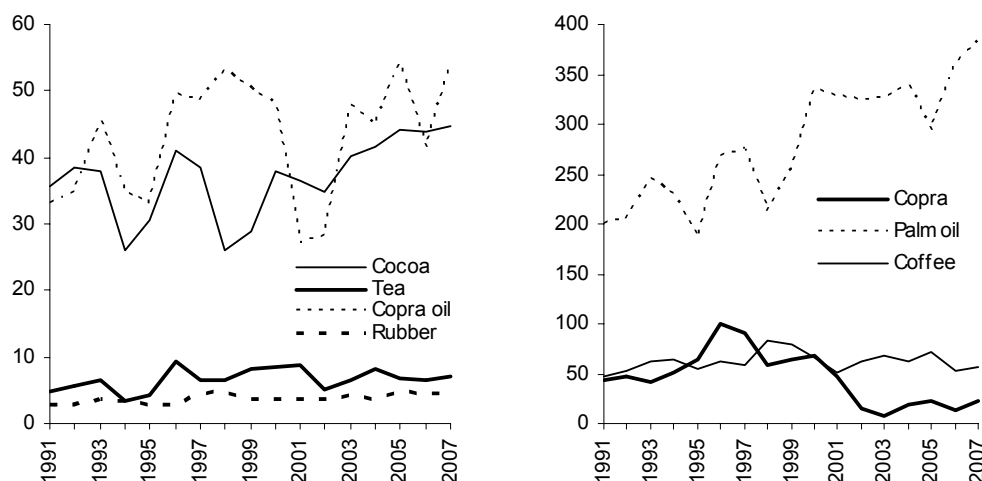


Note: The chart shows the average price of coffee, cocoa, copra, copra oil, palm oil, tea and rubber, weighted by 2002 production volumes.

Source: Bank of Papua New Guinea, various years. *Quarterly Economic Bulletin*, various issues, Bank of Papua New Guinea, Port Moresby.

Economic survey

Figure 5 Export quantities, 1991–2007 ('000 tonnes)



Source: Bank of Papua New Guinea, various years. *Quarterly Economic Bulletin*, various issues, Bank of Papua New Guinea, Port Moresby; Papua New Guinea, 2007. *2008 National Budget. Volume 1*, Government of Papua New Guinea, Port Moresby.

of cash earnings for people in the Islands and Southern Provinces. Smallholders now manage the bulk of coconuts; many of these trees, however, are on pre and post-independence plantations that have reverted to traditional ownership. More than half of the palms were estimated to be senile in 1995 (Arancon 1997). A major source of the value of coconut palms is the shade they provide for growing other cash and food crops: the shade reduces the need for fertiliser and other inputs to manage stress.

Copra exports have been in long-term decline (Table 3). Declining world prices are one reason for this, but in those parts of the country with coconut stands and limited alternative cash-generating options, copra harvesting would continue if market access were reasonably assured (Warner et al. 2007).

Exports have been hit by two additional factors: a general deterioration in transport

infrastructure for the main coconut-growing areas was exacerbated by the deregulation of copra marketing. Termination of the effectively subsidised services of the Copra Marketing Board (CMB) adversely affected copra production in provinces such as Milne Bay, East Sepik, Morobe and Manus, which were afflicted by the lack of a marketing infrastructure and high shipping/transport costs. Some of the provinces—Central, Gulf and Oro in the Papua region and Sandaun in the Momase region—that used to produce and trade copra ceased after the deregulation. (It should be noted that marketing problems preceded deregulation.) A recent study of the coconut sector pointed out that

[t]he CMB appears to have performed satisfactorily through the 1980s, however during the late 1990s became insolvent due to a combination of the adverse market developments...plus

Economic survey

the impacts of poor management and political interference at a board level. The bottom line was that insolvency [led] to producers not being paid in full. Many smallholders acted rationally and chose not to actively harvest for cash sale to traders and the CMB. Production fell dramatically and still remains low (Warner et al. 2007).

A second development—less unfortunate for coconut harvesters—is that an increasing proportion of copra has been crushed into crude coconut oil by local mills. For example, the proportion of copra that was crushed in 2005 was 77 per cent; in 2006, it was 85 per cent; and, in 2007, the proportion increased to 90 per cent.

The industry's overall performance has improved in the past two years. There are four main reasons for this.

- Higher world prices since the second half of 2006 have had a positive effect on copra production throughout the country.
- The establishment of a third major copra-oil mill in Port Moresby recently has provided market access for the coconut growers in the Central and Gulf Provinces. Coconut growers began to produce copra again in mid 2007. By the end of 2007, production from the Central Province was about 27 metric tonnes and from Gulf Province it was about 3 metric tonnes. The new mill's copra-buying activities have also extended to Milne Bay, Morobe and Madang, with plans to extend to Wewak in 2008. This expansion has led to an increase in Milne Bay Province copra production in 2007; resumption of copra production in Morobe Province after the withdrawal of buyers and/or exporters from the province in 2005; and enhanced competition, leading to relatively higher prices in Madang with the presence of alternative buyers of copra.
- The entry of buyers into what used to be the traditional trading areas for the two crude coconut oil mills in East New Britain and Madang Provinces. The entry of additional players has significantly boosted the mill-gate prices received by the growers in these two provinces as competition for copra has intensified.
- Reduction in the management levies for copra and coconut oil by 49 per cent and 45 per cent respectively between 2002 and 2007. These reductions in levies translate to more than K1 million being retained by exporters of copra and coconut oil in the same period.

Despite these positive trends, however, there are still significant tracts of coconuts that are not producing copra because no traders are accessing these areas due to high shipping and/or other costs. Between 1997 and the 2002 pre-deregulation period, annual copra production averaged about 138,000 metric tonnes per annum. In the past five years (2003–06) post deregulation, average annual copra production has stagnated at about 95,500 tonnes. Consequently, an average of 42,500 tonnes of copra equivalent per annum has been 'lost' since the deregulation of copra marketing. This translates to a reduction of about K25.2 million in rural copra farm incomes per annum.³ As with other export crops, the industry has not been helped by the dysfunctional state of the government commodity bodies that oversee key aspects of the sector (Box 2).

Looking forward

The problems plaguing coconut producers are replicated—with variations—across coffee and cocoa and most other cash crops. A recent study of the coffee and cocoa industries for the Australian Centre

Economic survey

Box 2**Government commodity bodies: help or hindrance?**

Governance issues affecting commodity boards and R&D institutions in Papua New Guinea have received wide coverage and scrutiny in the past ten years compared to other sub-sectors of the agriculture sector. Much of this stems from the political economy in the appointments of directors to the commodity boards, and the subsequent politicisation of these organisations has almost rendered them dysfunctional. The coconut sector provides an example of this problem and recent decisions of the Coffee Board highlight the erratic nature of the behaviour of these bodies.

The KIK story

The Kokonas Industri Koporesen (KIK) was established in the latter half of 2002 by the Kokonas Industri Koporesen Act 2002, replacing the Copra Marketing Board as part of the Government's deregulation plans for the coconut industry. The Act empowered an Interim Board to provide policy direction to move the new entity and the coconut industry forward. A major task in this regard was the formation of a permanent Board. However, frequent changes at the Interim Board and management levels since 2002 have resulted in lack of stable leadership in KIK thus leading to the prolonged delay in the formation of associations for smallholders, plantations, processors and exporters. The formation of these associations is necessary for smallholders to be nominated for consideration for appointment on the full KIK Board as stipulated in the Act.

Since the deregulation, the KIK has had 7 Chairmen and 4 CEOs/Managing Directors in a space of five years. The frequent changes have delayed the accomplishments of certain milestones in the 5-year transitional phase. The current management and board are expected to achieve in a few months what was to have taken over five years to accomplish.

The ban on cherry sales

The Coffee Industry Corporation (CIC) recently imposed a blanket ban on the sale of cherry coffee. The CIC was reported in the *Post Courier* weekend edition of 1–3 February as saying that the ban was imposed to avoid stealing of cherry coffee and to control quality of cherry coffee. The CIC said growers do not seem to benefit from their coffee due to constant thefts of cherry and the increase in roadside buying of cherry coffee. It said at the same time quality of the coffee has dropped and the ban is necessary to ensure growers receive direct benefit while coffee quality is properly maintained. Unfortunately, as documented in recent studies of the coffee sector, cherry sales gain premium over sales of parchment coffee precisely because exporters can control the final quality when they purchase cherry (Quirke, Harding and Warner 2007).

Economic survey

for International Agricultural Research (ACIAR) suggested that, although the suitability of these crops for smallholders was demonstrated compellingly by their durability as a main cash crop through much of the Highlands and Islands regions,

[t]he key impediments to economic activity in these sectors have been well documented in the literature and by ACIAR research projects. These are roads, law and order (lack of security) and problems associated with land tenure and tribal conflict.

In addition, we suggest the following factors could be added as binding constraints: capacity to hold money (more so than the availability of credit), and falls in health status that have directly affected ability to supply labour.

The combination of these factors probably overwhelms many other issues that would be considered significant impediments in countries with better developed markets (Quirke et al. 2007).

This diagnosis is put forward also in the government's National Agricultural Development Plan (NADP), which identifies the following as overarching constraints in the sector: transport and communication; law and order; land tenure; financing; natural resource management; standards, quality control, processing and regulation; marketing and promotion; and gender and social issues. The report of the national consultative workshop on agriculture and rural development, which was held to provide major inputs into the formulation of the NADP, also stressed the need for significant improvements in overall governance and probity in public expenditure management (NARI 2002).

The diagnosis is reinforced by the findings of a recent study of the informal

sector by the Foreign Investment Advisory Service of the World Bank. The study (FIAS, forthcoming) indicates that lack of access to markets 'appears to be an issue most acutely felt by people living in rural communities'. Its main recommendations include the upgrading of transportation infrastructure linking rural areas with urban areas and urban centres with different regions, and upgrading the quality of formal urban markets to ensure they meet minimum standards relating to shelter, clean water, drainage, garbage disposal and toilet facilities. As Box 3 shows, the transport infrastructure problem continues to fester.

The big question is whether these diagnoses are informing government policy formation and expenditure planning. The key indicators here are the NADP for 2007–16 and annual budgets.

The government has indicated its intention to allocate some of the revenue windfall to transport infrastructure and the law and justice sector (Table 2). The 2008 Budget also allocates K196 million to a trust fund for future expenditure on the National Infrastructure Development Program—pending approval of a five-year funding program—as well as more than K100 million in additional priority expenditure on transport infrastructure. The focus of the recommendation in the NADP is, however, on agricultural research, extension, information and training; crop development through strategies such as the rehabilitation of plantations, promotion of nucleus estates and cooperatives; rehabilitation of breeding centres; gender, social and HIV/AIDS related issues; regulatory and technical services; and management of the plan itself.

These areas are important, and important efforts are under way to strengthen the national agricultural research system and to make it more responsive to farmers' needs. Expansion of agricultural output and improvements in productivity will,

Economic survey

however, depend on the willingness of smallholders to take on the risks of investment. Most smallholders face an uncertain environment, with limited access to modern means to cope with shocks. As a consequence, they have adopted diversified production strategies, mixing food production with cash generation in crops in which plantings were made many years ago, using very low input, non-intensive systems. (A study by Curry et al. [2007] into the decision-making processes in cocoa production and management in two cocoa-producing areas in East New Britain found that cocoa-producing smallholders tended to pursue a diverse range of livelihood strategies as reflected

in the patterns of labour allocation among households. The three major income-generating activities were cocoa and copra production and local marketing of garden produce.)

Lack of consistent market access and the high associated transaction costs caused by poor property security and erratic transport and communications reduces the incentives to earn cash (there is not much to buy), to expand cash crop production or to invest in higher yields or improved quality through more input-intensive production systems. At the same time, business investment in activities in the value chain before and after the 'smallholder farm gate' is problematic. This affects smallholders with respect to

Box 3 Transport and cash crops

Two articles in the *Post Courier* of 13 February 2008 highlight the centrality of transport to producers of cash crops.

MILLIONS of kina worth of coffee is stranded and major planters fear they could be forced out of business if the only road linking them to factories in Kainantu, Eastern Highlands Province is not fixed.

Reports from Kainantu yesterday confirmed the plight of the planters who own and run 32 large plantations at the border of the Obura/Wonenara and Kai-nantu areas.

'The coffee season for this year has started and we are picking our coffee but we can not move them to the factories in Kainantu because we have no road', a spokesman and owner of Akamupa plantation, Sailas Kai said from Kainantu yesterday.

'We can not use the only road linking us to the factories because flooding in recent weeks is taking away the Iyaarumba bridge', he said.

Mr Kai said the plantations expected a bumper crop this season but feared the hundreds of tonnes of coffee they picked were not going into the factories because of the destruction to the road and bridge by the Iyaarumba River.

THE Highlands Highway has been cut off at Daulo Pass again.

Continuous rain in the region triggered another massive landslide at Daulo Pass on Monday night, cutting off the four highlands provinces and resources development projects in Enga and Southern Highlands provinces.

The landslide occurred at the same location where part of a mountain collapsed, cutting off the highway last week.

Eastern Highlands provincial works manager Steven Sapalo yesterday said the latest landslide was three times bigger than last week's slip which saw the flow of traffic come to a standstill for a week.

Economic survey

information flows, input supplies, post harvest handling, transport logistics and interaction with non-local and world markets.

Unless these constraints are addressed, direct government spending in agriculture, and the strategies envisaged in the plan, are unlikely to be very successful. While the strategies adopted by smallholders have proved to be very robust, population pressures and declining land fertility could increasingly threaten them. Most commodity forecasts suggest that the current high prices for the main cash crops will not continue into the medium term, so the need for productivity improvements will become more pressing. As long as the incentives for intensification and specialisation remain so weak, however, smallholders might remain unwilling to make the necessary investments, even if the technologies are available.

Conclusion

Papua New Guinea is experiencing an unprecedented stimulus, in which mineral and most agricultural commodity prices are booming. To date, the potential negative effects of this boom on the rural economy—through inflation and real exchange rate appreciation—have been relatively mild, and have been offset for those people producing the key agricultural export commodities. Rural people not engaged in producing these crops could be experiencing rather harder times, and it is to be expected that urban demand for imported foodstuffs might rise, impacting on local food production for the market.

There has been a supply response to the improved agricultural prices—but much of this is in the form of increased harvesting effort, rather than new plantings or use of higher-yielding varieties and technologies.

A sustained supply expansion depends on addressing the constraints that reduce incentives for rural specialisation and investment—and these constraints are well known. The challenge for government will be to take advantage of its current windfall to tackle these constraints seriously; otherwise, as with previous booms, all that will be left when it is over is a sense of lost opportunities.

Notes

- ¹ This conclusion must be treated with some caution, given the great limitations of the CPI as a measure of real price movements in the economy. The index is based on a basket for urban consumers, with weights that are about one-quarter of a century old. The index certainly understates the impact of fuel price changes and does not adequately (if at all) capture movements in rents, which are known to have been increasing rapidly in the past few years in the main urban centres.
- ² Coffee was seriously affected by adverse weather conditions in 2006.
- ³ This is based on a five-year (2003–07) average 'fair merchantable standard' (FMS) price of K594 per tonne.

References

- Arancon, R.N., 1997. *Asia Pacific forestry sector outlook study: focus on coconut wood*, Asia-Pacific Forestry Sector Outlook Study Working Paper No. APFSOS/WP/23, Food and Agriculture Organization, Rome.
- Bank of Papua New Guinea, various years. *Quarterly Economic Bulletin*, various issues, Bank of Papua New Guinea, Port Moresby.
- Curry, G.N., Koczberski, G., Omuru, E. and Nailina, R.S., 2007. *Farming or Foraging? Household labour and livelihood strategies amongst smallholder cocoa*

Economic survey

- growers in Papua New Guinea*, Centre for Advanced Studies in Australia, Asia and the Pacific, Humanities, Curtin University of Technology, Perth.
- Fleming, E. 2007. 'Agricultural productivity change in Pacific island economies', *Pacific Economic Bulletin*, 22(3):32–47.
- Foreign Investment Advisory Service (FIAS) (forthcoming). *Study of the informal economy of Papua New Guinea*, Report prepared for the National Consultative Committee on the Informal Economy, Canberra.
- International Finance Corporation (IFC), 2008. Digicel PNG: summary of proposed investment, International Finance Corporation, Washington, DC. Available online from <http://ifcln001.worldbank.org/IFCExt/spiwebsite1.nsf/f451ebbe34a9a8ca85256a550073ff10/bcbbbeb010e3f4a9a8525730c00520146?OpenDocument> (accessed 3 March 2008).
- Kamit, W., 2008. *Monetary Policy Statement*, Bank of Papua New Guinea, Port Moresby.
- National Agricultural Research Institute (NARI), 2002. *Strategies for Agriculture and Rural Development in Papua New Guinea, Proceedings of the National Consultative Workshop on Agriculture and Rural Development: issues and strategies*, National Agricultural Research Institute, Lae.
- National Economic and Fiscal Commission (NEFC), personal communication.
- Papua New Guinea, 2007. *2008 National Budget. Volume 1*, Government of Papua New Guinea, Port Moresby.
- Papua New Guinea, Ministry of Agriculture and Livestock, 2007. *National Agricultural Development Plan 2007–16. Volume 1*, Government of Papua New Guinea, Port Moresby.
- Quirke, D., Harding, M. and Warner, B., 2007. *Papua New Guinea coffee and cocoa policy linkages*, Project PLIA/2005/148, Australian Centre for International Agricultural Research, Canberra.
- Reddy, M., 2007. 'Enhancing the agricultural sector in Pacific island economies', *Pacific Economic Bulletin*, 22(3):48–62.
- Warner, B., Quirke, D. and Longmore, C., 2007. *The coconut industry: review of prospects and strategies for future ACIAR investment*, Project PLIA/2007/019, Australian Centre for International Agricultural Research, Canberra.